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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,923	03/21/2006	Masanori Masuda	DK-US065034	7025
22919 7590 11/06/2007 GLOBAL IP COUNSELORS, LLP 1233 20TH STREET, NW, SUITE 700 WASHINGTON, DC 20036-2680			EXAMINER TRIEU, THERESA	
			ART UNIT 3748	PAPER NUMBER
			MAIL DATE 11/06/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/572,923

Applicant(s)

MASUDA, MASANORI

Examiner

Theresa Trieu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date March 21, 2006.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Receipt and entry of Applicant's Preliminary Amendment filed on March 21, 2006 is acknowledged.

Claims 1-5 have been amended. Accordingly, claims 1-5 are pending in this application.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

2. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
3. The disclosure is objected to because of the following informalities: page 13, [0057] paragraph, line 24, " FIG. 3(C) " should be changed to -- FIG.4 (C) --. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Jenkins (Patent Number 141,226).

Regarding claim 1, as shown in Figs. 1-5, Jenkins discloses a rotary fluid device comprising a rotation mechanism including a cylinder (C) having an annular cylinder chamber

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3(a), and an annular piston (D) disposed in the cylinder chamber to be eccentric relative to the cylinder, the annular piston (D) dividing the cylinder chamber into an outer working chamber (a) and an inner working chamber (a); and a blade (F') disposed in the cylinder chamber to divide each of the inner and outer working chambers (a) into a high-pressure space and a low-pressure space, the cylinder and the piston being relatively rotatable, wherein one of the inner and outer working chambers (a) being a compression chamber which compresses and discharges a sucked fluid with a progression of a relative rotation of the cylinder and the piston, and the other of the inner and outer working chambers (a) being an expansion chamber which expands and discharges a sucked fluid with a progression of a relative rotation of the cylinder and the piston.

Regarding claims 2-5, Jenkins further discloses a suction mechanism (ff) which allows the refrigerant to be introduced into the expansion chamber a in a predetermined rotation angle range of the piston (D) such that an expansion process of the fluid in the expansion chamber occurs in a predetermined range within one rotation cycle of the piston relative to the cylinder; the compression chamber (a) being a working chamber formed outside the cylinder chamber, and the expansion chamber (a) being a working chamber formed inside the cylinder chamber; a drive mechanism (A – see Figs. 1 and 5) for driving the rotation mechanism, with a rotation speed of the drive mechanism being variably controlled; the piston (D) being C-shaped to form a gap, the blade (F') extends between an inner peripheral wall surface and an outer peripheral wall surface of the cylinder chamber (a) through the gap of the piston, and the gap has a swing bushing therein, the swing bushing (F) being in contact with the piston (D) and the blade (F') such that the blade (F') is reciprocable and the blade is swingable relative to the piston (D).

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Prior Art

5. The IDS (PTO-1449) filed on March 21, 2006 has been considered. An initialized copy is attached hereto.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of four patents: Elkelof (U.S. Patent Number 1,906,142), Tice (U.S. Patent Number 1,229,676), Straatveit (U.S. Patent Number RE 24,500) and Richardson, Jr. (U.S. Patent Number 5,302,095), each further discloses a state of the art.

Communication


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Theresa Trieu whose telephone number is 571-272-4868. The examiner can normally be reached on Monday-Friday 8:30am- 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on 571-272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TT
November 2, 2007



Theresa Trieu
Primary Examiner
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